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(54) Title: CHORIONIC SOMATOMAMMOTROPIN HORMONE SPLICE VARIANTS

QUERY: 1 ERAGSRISLLAPALLCLPMLQZAGAVVTVPLSLPDEHMLQAEARQLAIDTQEVSS 60
ERAGSRISLLAPALLCLPMLQZAGAVVTVPLSLPDEHMLQAEARQLAIDTQEVSS +
SUBJ: 1 ERAGSRISLLAPALLCLPMLQZAGAVVTVPLSLPDEHMLQAEARQLAIDTQEVSS 60

QUERY: 1 ERAGSRISLLAPALLCLPMLQZAGAVVTVPLSLPDEHMLQAEARQLAIDTQEVSS 60
ERAGSRISLLAPALLCLPMLQZAGAVVTVPLSLPDEHMLQAEARQLAIDTQEVSS +
SUBJ: 1 ERAGSRISLLAPALLCLPMLQZAGAVVTVPLSLPDEHMLQAEARQLAIDTQEVSS 60

...
QUERY: 61 W-----GDSIPPSSMEETQKSLLRISLLIISNLSPVPLR 102
+ DSIPPSSMEETQKSLLRISLLIISNLSPVPLR
SUBJ: 61 YIPDQKYSFLADSQTSFCDSIPPSSMEETQKSLLRISLLIISNLSPVPLR 120
.....

QUERY: 61 W-----GDSIPPSSMEETQKSLLRISLLIISNLSPVPLR 102
+ DSIPPSSMEETQKSLLRISLLIISNLSPVPLR
SUBJ: 61 YIPDQKYSFLADSQTSFCDSIPPSSMEETQKSLLRISLLIISNLSPVPLR 120
.....

QUERY: 103 SFAANLWTDSDSDYLLLADLREGIQLTLEGRLEDGSEETQJLQIQTYSKPDTNSHED 162
SFAANLWTDSDSDYLLLADLREGIQLTLEGRLEDGSEETQJLQIQTYSKPDTNSHED
SUBJ: 121 SFAANLWTDSDSDYLLLADLREGIQLTLEGRLEDGSEETQJLQIQTYSKPDTNSHED 160

QUERY: 103 SFAANLWTDSDSDYLLLADLREGIQLTLEGRLEDGSEETQJLQIQTYSKPDTNSHED 162
SFAANLWTDSDSDYLLLADLREGIQLTLEGRLEDGSEETQJLQIQTYSKPDTNSHED
SUBJ: 121 SFAANLWTDSDSDYLLLADLREGIQLTLEGRLEDGSEETQJLQIQTYSKPDTNSHED 160

QUERY: 163 ALLONGGLYCPKQDIDKVEVTLRQVCSVSOGF 199
ALLONGGLYCPKQDIDKVEVTLRQVCSVSOGF
SUBJ: 181 ALLONGGLYCPKQDIDKVEVTLRQVCSVSOGF 217

QUERY: 163 ALLONGGLYCPKQDIDKVEVTLRQVCSVSOGF 199
ALLONGGLYCPKQDIDKVEVTLRQVCSVSOGF
SUBJ: 181 ALLONGGLYCPKQDIDKVEVTLRQVCSVSOGF 217

A

B

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(57) Abstract: The invention is based on the discovery that the INSP100 is a novel splice variant of human chorionic somatomammotropin hormone 2 (HCS-B; Q14407) and that INSP104 is a novel splice variant of human Chorionic somatomammotropin hormone 1 (hCS-A; P01243).



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C07K14/575 C12N15/00 A61K38/00		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 C07K		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the International search (name of data base and, where practical, search terms used) EPO-Internal, Sequence Search, BIOSIS, PAJ, FSTA, EMBASE, WPI Data		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE UniProt 'Online! 1 November 1996 (1996-11-01), "Chorionic somatomammotropin CS-5." XP002304199 retrieved from EBI accession no. UNIPROT:Q14406 Database accession no. Q14406 the whole document -& VNENCAK-JONES C L ET AL: "HOT SPOTS FOR GROWTH HORMONE GENE DELETIONS IN HOMOLOGOUS REGIONS OUTSIDE OF ALU REPEATS" SCIENCE, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,, US, vol. 250, 21 December 1990 (1990-12-21), pages 1745-1748, XP002044349 ISSN: 0036-8075</p> <p style="text-align: center;">----- -/-</p>	1-45
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.		<input type="checkbox"/> Patent family members are listed in annex.
<p>* Special categories of cited documents :</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the International filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the International filing date but later than the priority date claimed</p> <p>"T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&" document member of the same patent family</p>		
Date of the actual completion of the International search	Date of mailing of the International search report	
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Turri, M	

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>CHEN E Y ET AL: "THE HUMAN GROWTH HORMONE LOCUS: NUCLEOTIDE SEQUENCE, BIOLOGY, AND EVOLUTION" GENOMICS, ACADEMIC PRESS, SAN DIEGO, US, vol. 4, no. 4, 1989, pages 479-497, XP000990095 ISSN: 0888-7543 -& DATABASE GENE BANK 8 November 1994 (1994-11-08), CHEN E Y ET AL: "HUMAN GROWTH HORMONE (GH-1 AND GH-2) AND CHORIONIC SOMATOMAMMOTROPIN (CS-1, CS-2 AND CS-5) GENES, COMPLETE CDS" XP002185150 retrieved from GENE BANK Database accession no. J03071 the whole document</p> <p>-----</p> <p>HIRT H ET AL: "THE HUMAN GROWTH HORMONE GENE LOCUS STRUCTURE EVOLUTION AND ALLELIC VARIATIONS" DNA (NEW YORK), vol. 6, no. 1, 1987, pages 59-70, XP009039318 ISSN: 0198-0238</p> <p>T</p> <p>-& DATABASE SWISSPROT 25 October 2004 (2004-10-25), "Chorionic somatomammotropin hormone precursor (Choriomammotropin) (Lactogen)" XP002304200 retrieved from SWISSPROT Database accession no. P01243 abstract</p> <p>-----</p> <p>SEEBURG P H: "THE HUMAN GROWTH HORMONE GENE FAMILY NUCLEOTIDE SEQUENCES SHOW RECENT DIVERGENCE AND PREDICT A NEW POLY PEPTIDE HORMONE" DNA (NEW YORK), vol. 1, no. 3, 1982, pages 239-250, XP001058450 ISSN: 0198-0238</p> <p>-----</p> <p>LI C H ET AL: "AMINO-ACID SEQUENCE OF HUMAN CHORIONIC SOMATOMAMMOTROPIN" ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS, vol. 155, no. 1, 1973, pages 95-110, XP009039320 ISSN: 0003-9861</p> <p>-----</p> <p style="text-align: center;">-/-</p>	

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	BARRERA-SALDANA H A ET AL: "2 STRUCTURALLY DIFFERENT GENES PRODUCE THE SAME SECRETED HUMAN PLACENTAL LACTOGEN HORMONE" JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 258, no. 6, 1983, pages 3787-3793, XP002304205 ISSN: 0021-9258 -----	
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